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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,169	09/24/2002	Thomas Roehr	2002P09637US	4887
31366	7590	05/06/2004	EXAMINER	
HORIZON IP PTE LTD 166 Kallang Way 6th Floor SINGAPORE 349249, SINGAPORE			LUU, PHO M	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,169

Applicant(s)

ROEHR ET AL.

Examiner

Pho M Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 02/06/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-17 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 24 is/are rejected.
- 7) ☒ Claim(s) 18-22 and 25-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Updated Search History.

Amendment

1. Acknowledgment is made of applicant's Amendment, filed 26 February 2004.

The changes and remarks disclosed therein were considered.

2. Claimed 1-27 are pending in the application.
3. Claimed 18-27 are newly added.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in—(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1-6 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Noh. (US. 6,363,021).

Regarding claim 1 and 24, Noh (Fig. 1-2) discloses a redundancy circuit (10, Fig. 1) comprising a first fuse (12, Fig. 1) block including at least one first-type fuse (MF1, Fig. 1), a second fuse (14, Fig. 1) block including at least one second-type fuse (MF2, Fig. 1), a redundant element (the control unit 16 in Fig. 1 generates the redundancy enable signal of RDD_1 of first fuse block 12 and RDD_2 of second fuse block 14) coupled to the first and second fuse blocks and can be programmed by either the first or second fuse blocks (see column 4, lines 41-65).

With respect to claim 2-6, Noh (Fig. 1-2) disclosed a redundancy circuit for repairs defect in integrated circuit, a memory array, a memory cell for row and column redundancy (inherency, also, see column 1, lines 37-47).

Allowable Subject Matter

6. Claims 18-22 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 18 and 25, the prior art of record do not disclose or suggest the first type-fuse comprising a laser blowable fuse and the second type fuse comprises an electrical fuse.

Regarding claims 21 and 27, the prior art of record do not disclose or suggest a selection circuit coupled to between the fuse blocks and redundancy element to select either the first or second fuse block.

8. Claims 7-17 and 23 are allowed.

The following is an examiner's statement of reasons for allowance:

There is no teaching or suggestion in the prior art to "a redundant element coupled to the first and second fuse blocks, the redundant element can be programmed

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by either the first or second fuse blocks, wherein the first fuse comprises a laser blowable fuse and the second fuse comprises an electrical fuse" as claimed in the independent claim 7; or

"a selection circuit coupled to between the fuse blocks and redundancy element, the selection circuit either the first or second fuse blocks for programming the redundancy circuit" as claimed in the independent claim 16; or

"a first redundancy unit redundant element coupled to the first and second fuse blocks, the redundant element can be programmed by either the first redundancy unit first or second fuse and z number of second redundancy units, wherein z is a whole number and is equal to x-y, wherein a second redundancy unit includes a second redundancy unit fuse block comprising at least one first type fuse" as claimed in the independent claim 23.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamada. (US. 5,892,718) disclosed that a semiconductor memory device comprises memory cell blocks and a redundant memory cell block for programmable circuit.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pho M. Luu whose telephone number is

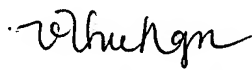
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571.272.1876.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Richard Elms, can be reached on 571.272.1869. The official fax number for the organization where this application or proceeding is assigned is 703.872.9306 for all official communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0956.

PML
29 April 2004


VAN THU NGUYEN
PRIMARY EXAMINER